
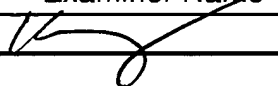


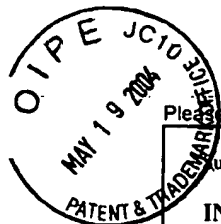
# ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

Title of Invention	ELECTROACTIVE POLYMER ACTUATED SHEATH FOR IMPLANTABLE OR INSERTABLE MEDICAL DEVICE						
Application Number :	10/702314						
Confirmation Number:	7968						
First Named Applicant:	Richard Mattison						
Attorney Docket Number:	03-099						
Art Unit:	<del>3731</del> 3734						
Examiner:							
Search string:	( 6447540 or 6264671 or 20030069474 or 20010001833 ).pn						
<b>US Patent Documents</b>							
Note: Applicant is not required to submit a paper copy of cited US Patent Documents							
init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
<input checked="" type="checkbox"/>	1	6447540	2002-09-10	Fontaine et al.	B1	623	1.12
<input checked="" type="checkbox"/>	2	6264671	2001-07-24	Stack et al.	B1	606	198
<b>US Published Applications</b>							
Note: Applicant is not required to submit a paper copy of cited US Published Applications							
init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
<input checked="" type="checkbox"/>	1	20030069474	2003-04-10	Couvillon, Jr.	A1	600	152
<input checked="" type="checkbox"/>	2	20010001833	2001-05-24	Ravenscroft et al.	A1	623	1.12
<b>Signature</b>							
Examiner Name				Date			
				3/24/07			

Docket No.: 03-099



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Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/702,314
Sheet		1	of	5	
		Filing Date		11/06/2003	
		First Named Inventor		Richard Carlton Mattison	
		Group Art Unit		3734 3734	
		Examiner Name		Unassigned	
		Attorney Docket Number		03-099	

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Class/Subclass		
u	1.	US2002/0039620A1	427/2.12	Shahinpoor et al.	04/04/2002
	2.	6,514,237 B1	604/533	Maseda	02/04/2003
	3.	6,475,639 B2	428/614	Shahinpoor et al.	11/05/2002
	4.	6,391,051 B2	623/1.12	Sullivan III et al.	05/21/2002
	5.	6,109,852	414/1	Shahinpoor et al.	08/29/2000
	6.	5,855,565	604/104	Bar-Cohen et al.	01/05/1999
	7.	5,631,040	427/100	Takuchi et al.	05/20/1997
	8.	5,268,082	204/282	Oguro et al.	12/07/1993
	9.	US2001/0026165A1	324/750	Pelrine et al.	10/04/2001
	10.	6,520,983 B1	623/1.11	Colgan et al.	02/18/2003
	11.	6,249,076 B1	310/363	Madden et al.	06/19/2001
	12.	6,117,296	204/607	Thomson	09/12/2000
	13.	5,766,013	434/114	Vuyk	06/16/1998
	14.	5,556,700	428/332	Kaneto et al.	09/17/1996
	15.	5,389,222	204/299.2	Shahinpoor	02/14/1995
u	16.	5,100,933	523/300	Tanaka et al.	03/31/1992
	17.	5,250,167	204/299 R	Adolf et al.	10/05/1993

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T
		Office <sup>2</sup>	Number <sup>3</sup>	Class/Subclass			
u	1.	WO	01/58973A2	C08G	SRJ International	08/16/2001	

Examiner Signature	<i>K. J. [Signature]</i>	Date Considered	3/24/07
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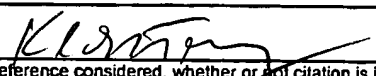
<sup>1</sup> Unique citation designation number. <sup>2</sup> See Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English Language Translation is attached.

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		First Named Inventor	Richard Carlton Mattison		
		Group Art Unit	3731		
		Examiner Name	Unassigned		
Sheet	2	of	5	Attorney Docket Number	03-099

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
	1	JAGER, EDWIN W.H., et al., "Applications of Polypyrrole Microactuators," SPIE Proceedings, Conference on Electroactive Polymer Actuators and Devices, March 1999, Vol. 3669, pp. 377-384.	
	2.	OTERO, TORIBIO et al., "EAP as Multifunctional and Biomimetic Materials," SPIE Proceedings, Conference on Electroactive Polymer Actuators and Devices, March 1999, Vol. 3669, pp. 26-34.	
	3.	SMELA, ELISABETH, "Conjugated Polymer Actuators for Biomedical Applications," <i>Advanced Materials</i> , Vol. 15, no. 6, March 17, 2003, pp. 481-494	
	4.	GÜLCH, RANIER W., et al., "Characterization of Electroactive Behavior and of Progress in Developments and Applications of Ionic Polymer Gels," <i>Smart Structures and Materials 2002</i> , ed. Y. Bar-Cohen, SPIE Proceedings, Vol. 4695, 2002, pp. 367-377.	
	5.	BAR-COHEN, YOSEPH, "Electroactive Polymers as Artificial Muscles – Capabilities, Potentials and Challenges," Sec. 11 in chap. 8 of <i>Handbook on Biomimetics</i> , ed. Yoshihito Osada (NTS, Inc., 2000), pp. 1-13.	
	6.	WAX, S.G., et al., "Compliant Actuators Based on Electroactive Polymers," Materials Research Society Symposium Proceedings, Vol. 600, 2000, pp. 3-11.	
	7.	ROCCHIA, W., et al., "Exploiting Conducting Polymer Radial Expansion for Bioinspired Actuation," <i>Smart Structures and Materials 2003</i> , ed. Y. Bar-Cohen, SPIE Proceedings, Vol. 5051, 2003, pp. 453-457.	
	8.	SAHOO, HEMANTKUMAR, et al., "Actuators Based on Electroactive Polymers," <i>Current Science</i> , Vol. 81, no. 7, Oct. 2001, pp. 743-746.	
	9.	SANSINENA, JOSÉ-MARIA, et al., "Conductive Polymers," Chap. 7 in <i>Electroactive Polymer Actuators (EAP) as Artificial Muscles</i> , ed. Y. Bar-Cohen (SPIE Press, 2001), pp. 193-221.	

Examiner Signature		Date Considered	3/24/07
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		Filing Date	11/06/2003
		First Named Inventor	Richard Carlton Mattison
		Group Art Unit	3731
		Examiner Name	Unassigned
Sheet	3	of	5
		Attorney Docket Number	03-099

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h	10.	BAR-COHEN, YOSEPH, ed., <i>WorldWide ElectroActive Polymers EAP (Artificial Muscles) Newsletter</i> , Vol. 3, no. 1, June 2001.	
	11.	BAR-COHEN, YOSEPH, "EAP History, Current Status, and Infrastructure," Chap. 1 in <i>Electroactive Polymer Actuators (EAP) as Artificial Muscles</i> , ed. Y. Bar-Cohen (SPIE Press, 2001), pp. 3-43.	
	12.	KORNBLUH, ROY, et al., "Application of Dielectric Elastomer EAP Actuators," Chap. 16 in <i>Electroactive Polymer Actuators (EAP) as Artificial Muscles</i> , ed. Y. Bar-Cohen (SPIE Press, 2001), pp. 457-495.	
	13.	BAR-COHEN, YOSEPH, "Transition of EAP Material from Novelty to Practical Applications – Are We There Yet?" <i>Smart Structures and Materials 2001</i> , ed. Y. Bar-Cohen, SPIE Proceedings, Vol. 4329, 2001, pp. 1-6.	
	14.	PELRINE, RON, et al., "Applications of Dielectric Elastomer Actuators," <i>Smart Structures and Materials 2001</i> , ed. Y. Bar-Cohen, SPIE Proceedings, Vol. 4329, 2001, pp. 335-349.	
	15.	MADDEN, JOHN D.W., et al., "Polypyrrole Actuators: Modeling and Performance," <i>Smart Structures and Materials 2001</i> , ed. Y. Bar-Cohen, SPIE Proceedings, Vol. 4329, 2001, pp. 72-83.	
	16.	BAR-COHEN, YOSEPH, "EAP Applications, Potential, and Challenges," Chap. 21 in <i>Electroactive Polymer Actuators (EAP) as Artificial Muscles</i> , ed. Y. Bar-Cohen (SPIE Press, 2001), pp. 615-659.	
	17.	JAGER, EDWIN W.H., et al., "Microfabricating Conjugated Polymer Actuators," <i>Science</i> , Vol. 290, Nov. 2000, pp. 1540-1545.	
u	18.	SMELA, ELISABETH, et al., "Electrochemically Driven Polypyrrole Bilayers for Moving and Positioning Bulk Micromachined Silicon Plates," <i>Journal of Microelectromechanical Systems</i> , Vol. 8, no. 4, Dec. 1999, pp. 373-383.	

Examiner Signature		Date Considered	3/24/07
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Substitute for form 1449A/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/702,314
		Filing Date	11/06/2003
		First Named Inventor	Richard Carlton Mattison
		Group Art Unit	3731
		Examiner Name	Unassigned
Sheet	4	of	5
		Attorney Docket Number	03-099

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n	19.	SMELA, ELISABETH, et al., "Thiol-Modified Pyrrole Monomers: 1. Synthesis, Characterization, and Polymerization of 1-(2-Thioethyl)pyrrole and 3-(2-Thioethyl)pyrrole," <i>Langmuir</i> , Vol. 14, 1998, pp. 2970-2975.	
	20.	SMELA, ELISABETH, "Microfabrication of Ppy Microactuators and Other Conjugated Polymer Polymer Devices," <i>Journal of Micromechanics and Microengineering</i> , Vol. 9, 1999, pp. 1-18.	
	21.	IMMERSTRAND, C., et al., "Conjugated-Polymer Micro- and Milliactuators for Biological Applications," <i>Materials research Society Bulletin</i> , June 2002, pp. 1-4.	
	22.	MADDEN, JOHN D.W., et al., "Conducting Polymer Actuators as Engineering Materials," <i>Smart Structures and Materials 2002</i> , ed. Y. Bar-Cohen, SPIE Proceedings, Vol. 4695, 2002, pp. 176-190.	
	23.	ZHOU, D., et al., "Actuators for the Cochlear Implant," <i>Synthetic Materials</i> , Vol. 135-136, 2003, pp. 39-40.	
	24.	<a href="http://www.micromuscle.com">http://www.micromuscle.com</a>	
	25.	BROCK, DAVID L., Review of Artificial Muscle Based on Contractile Polymers. Massachusetts Institute of Technology Artificial Intelligence Laboratories. <a href="http://www.a1.mit.edu/projects/muscle/papers/memo1330/memo1330.html">http://www.a1.mit.edu/projects/muscle/papers/memo1330/memo1330.html</a>	
	26.	Material: Conducting polymers, Dielectric elastomers, Piezoelectric materials. <a href="http://www.designinsite.dk/htmsider">http://www.designinsite.dk/htmsider</a>	
	27.	Artificial Muscle Transducers. <a href="http://www.erg.sri.com/automation/actuators.html">http://www.erg.sri.com/automation/actuators.html</a>	

Examiner Signature		Date Considered	3/29/07
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W	28.	Miniature Electroactive-Polymer Rakes. <a href="http://www.nasatech.com/Briefs/Oct01/NPO20613.html">http://www.nasatech.com/Briefs/Oct01/NPO20613.html</a>	
	29.	Electroactive polymer. Nano Bioelectronics & Systems Research Center. <a href="http://nanobio.snu.ac.kr/eng/research_5.html">http://nanobio.snu.ac.kr/eng/research_5.html</a>	
	30.	Polymers and Separations Research Lab (PolySep). Electroactive Polymers as Artificial Muscles – A Primer. <a href="http://polysep.ucla.edu/Research%20Advances/EAP/electroactive_polymers-asartifi.htm">http://polysep.ucla.edu/Research%20Advances/EAP/electroactive_polymers-asartifi.htm</a>	
	31.	Aviation Research. You Decide. Electroactive Polymers 2: Ionic and Conductive Polymers. <a href="http://virtualskies.arc.nasa.gov/research/youDecide/ionicNConducPolym.html">http://virtualskies.arc.nasa.gov/research/youDecide/ionicNConducPolym.html</a>	
	32.	ElectroActive Polymers – EAPs. <a href="http://www.azom.com/details.asp?ArticleID=885">http://www.azom.com/details.asp?ArticleID=885</a>	
	33.	<a href="http://www.darpa.mil/dso/trans/electropolymers/projects/EAP_Jan02_LJB.pdf">http://www.darpa.mil/dso/trans/electropolymers/projects/EAP_Jan02_LJB.pdf</a>	

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